

Appln No. 09/826,435

Amdt date February 3, 2005

Reply to Office action of November 3, 2004

Amendments to the Specification:

The paragraph beginning at line 12 of page 1 has been amended as follows:

This patent application is further related to the following U.S. Patent Applications filed concurrently herewith and commonly assigned, entitled "A Method of Sharing Information among a Plurality of Stations in a Frame-based Communications Network", Application No. 09/825,708, "A Method of Enhancing Network Transmission on a Priority-enabled Frame-based Communications Network", Application No. 09/825,897, "A Method of Determining a Start of a Transmitted Frame in a Frame-based Communications Network", Application No. 09/825,903, "A Method of Determining an End of a Transmitted Frame in a Frame-based Communications Network", Application No. 09/825,775, "A Method for Providing Dynamic Adjustment of Frame Encoding Parameters in a Frame-based Communications Network", Application No. 09/826,218, "A Method for Selecting Frame Encoding Parameters to Improve Transmission Performance in a Frame-based Communications Network", Application No. 09/825,756, "A Method of Determining a Collision Between a Plurality of Transmitting Stations in a Frame-based Communications Network", Application No. 09/825,801, "A Method of Providing Synchronous Transport of Packets Between Asynchronous Network Nodes in a Frame-based Communications Network", Application No. 09/825,851, "A Method of Controlling Data Sampling Clocking of Asynchronous Network Nodes in a Frame-based Communications Network", Application No. 09/826,067, "A Method for Distributing Sets of Collision Resolution Parameters

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in a Frame-based Communications Network", Application No. 09/825,689, "A Method and Apparatus for Optimizing Signal Transformation in a Frame-based Communications Network", Application No. 09/825,599, "A Method and Apparatus for Transceiver Noise Reduction in a Frame-based Communications Network", Application No. 09/825,638, "A Method for Selecting an Operating Mode for a Frame-based Communications Network", Application No. 09/825,791, and "A Transceiver Method and Signal Therefor Embodied in a Carrier Wave for a Frame-based Communications Network", Application No. 09/826,239.

After the paragraph being at line 5 of page 13, the following new paragraph is added:

--Fig. 98 shows an overview of the receiver station frame encoding selection methodology.--

The paragraph being at line 23 on page 113 is amended as follows:

As described above, in accordance with the present invention the dynamically selecting of the encoding of data frames on a network where nodes can transmit frames with various encodings is provided. The encodings may vary several parameters including but not limited to the numbers of bits per symbol, the number of symbols per second, or the frequency band(s) used. A node receiving data frames makes a determination about which encodings are appropriate for use on the channel between the sender and the receiver. Multiple encodings may be selected. The data frame receiver then notifies the data frame sender of the

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encoding selections, with an indication of the relative usability of the selected encodings, via a control frame. The sender is free to use any of the specified encodings, or may use one not included in the list according to additional selection criteria. The protocol tolerates loss of control frames, and provides a mechanism for retransmission of lost control frames without excessively loading the network. The protocol also provides a mechanism for adaptive selection of the encoding to use for transmission to a group of nodes (a "multicast group"). In particular, a node receiving data frames first gathers statistics from frames sent at any encoding, and extrapolates these statistics to estimate the expected frame error rate of all possible encodings. Using the estimated frame error rates, the data receiving node computes a performance metric for all possible encodings. Using the performance metrics, the data receiving node selects an encoding for use on the channel between the sender and the receiver to maximize network throughput subject to frame error rate constraints. Fig. 98 shows an overview of the receiver station frame encoding selection methodology.